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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,753	10/22/2003	Scot Cuthbertson	042390.P23888	7762
8791 7590 01/14/2008 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER NGUYEN BA, HOANG VU A	
			ART UNIT 2623	PAPER NUMBER
			MAIL DATE 01/14/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/691,753

Applicant(s)

CUTHBERTSON, SCOT

Examiner

Hoang-Vu A. Nguyen-Ba

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to amendment filed October 25, 2007.
2. Claims 1-14 are now pending. Claim 1 is an independent claim.

Response to Amendments

3. Per Applicant's request, claims 1 and 12 have been amended and new Claim 14 has been added.
4. The objection to the specification is withdrawn in view of Applicant's amendments to the title and the specification to correct minor informalities.
5. The objection to Claim 12 is withdrawn in view of Applicant's amendments to the claim to clarify the subject matter that is being claimed.

Response to Arguments

6. Applicant's arguments in the Remark section of the amendment filed on October 25, 2007 have been fully considered but they are not persuasive. The following is an examiner's response to Applicant's arguments and claim amendments.

Currently Amended Claim 1

Applicant's arguments:

It is respectfully submitted that the combination Fielding and Park lack the limitations of amended claim 1 of "a connector for mating with a corresponding connector on said television apparatus so as to make electrical contact therewith and be mechanically supported thereby" and a digital television converter within "connector rear housing which cooperates with said connector to form a compact enclosure containing and mechanically supporting" said connector and tuner. (Currently amended claim 1). The device disclosed by Fielding is intended to be incorporated into the housing of an apparatus to allow for the conversion from one format of connector to one or more other types of connectors. The device disclosed by Park is a set top box tuner and internet browser for the television. Combining Fielding with the set top box disclosed in Park will yield a large apparatus with many of the same components as a personal computer ("PC") to provide television broadcast and internet capabilities via one or more types of connectors (e.g. SCART and phono). The combination of Fielding and Park does not disclose a "compact enclosure" that is "mechanically supported" by its connector.

(Currently amended claim 1).

Examiner's response:

In response to Applicant that the combination of Fielding and Park does not disclose a "compact enclosure" that is "mechanically supported" by its connector, the examiner respectfully notes the following:

- i. since nowhere in Applicant's disclosure there is described the exact size of the claimed "compact enclosure," the scope of the limitation "compact" cannot be clearly and distinctly ascertained; thus, any arguments that this feature provides patentable distinction over the prior art will be unpersuasive; it is further noted that miniaturization of integrated circuit is well known in the art (e.g., TV tuner described in U.S. Patent No. 4,758,896 to Katsu Ito; Citizen Watch Co., Ltd.) and also admitted by Applicant in the disclosure at p. 3, lines 5-6 (e.g., "[a]dvantage can be taken of the scale of integration such that..."), therefore, it would not be unreasonable to either enclose Park circuitry in a compact enclosure and connect this compact enclosure to Fielding circuitry via the SCART connection port; depending on the design choice of the miniaturization of Park circuitry and that of the compact enclosure, the whole assembly would be approximately the size of a commercially available USB 2.0 stick TV Tuner.
- ii. the argument that Park's motherboard containing the circuitry of the digital TV tuner is not mechanically supported by Fielding's circuit board is deemed not persuasive to assert that

Applicant's feature is patentable distinct over the prior art; the modifier "mechanically" is reasonably interpreted to mean "physically;" a compact enclosure the size of a USB 2.0 stick TV tuner can be reasonably supported by the form of the connector part of the enclosure without causing any physical damages thereto.

Dependent Claims 2-9 and 11-13

Contrary to Applicant's assertion, these claims are not obvious over Fielding in view of Park because these claims incorporate the rejection of the respective base claim and recite additional features that are found to read on the prior art of record (see previous Office action).

Dependent Claim 10

Contrary to Applicant's assertion, Claim 10 incorporates the features of the base claim and further recites additional features that are found to be unpatentable over the combination Fielding-Park-Smith (see previous Office action).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-9 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 1176 821 A1 by Victor Fielding ("Fielding") in view of Korean Application Publication No. 10-2001-0016381 by Hwan-Su Park ("Park").

Currently Amended Claim 1

Fielding discloses at least a digital television converter (see at least FIG. 1) for a television apparatus, said television apparatus which is incapable of reception of digital television broadcasts, said converter comprising:

a connector for mating with a ~~mating~~ corresponding connector on said television apparatus so as to make electrical contact therewith and be mechanically supported thereby; (see at least FIG. 1, items 10, 12), and

a connector rear housing which cooperates with said connector to form ~~an~~ a compact enclosure containing and mechanically supporting said tuner (see at least FIG. 1, items 4, 6). Fielding does not specifically disclose a tuner for selecting and demodulating a digital television channel and for supplying to said connector signals in a form suitable for use by said apparatus. However, Park teaches a multifunction integration type motherboard for a set-top box (see at least section Purpose), which comprises a digital tuner that allows a user to watch digital broadcasting on an analog television (see at least section Constitution).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Fielding, as suggested in [0030], to accept the circuit board of Park, as this would allow a user with an analog television to watch digital broadcasting without having to purchasing a new digital television, a new STB and all necessary connectors and wiring for the

new setup.

Claim 2

The rejection of base claim 1 is incorporated. Fielding further discloses *said connector is a SCART connector* (see at least FIG. 1).

Claim 3

The rejection of base claim 1 is incorporated. The combination Fielding-Park further discloses *said tuner has an input, said connector comprising an aerial input connector fixed to said housing and electrically connected to said input of said tuner* (see at least Park, FIG. 3, item 90).

Claim 4

The rejection of base claim 1 is incorporated. The combination Fielding-Park further discloses a converter as claimed in claim 1, comprising *a printed circuit board, said tuner being mounted on said printed circuit board which is electrically connected to said connector and which is mechanically connected to said connector so as to be supported thereby* (see at least Park, FIG. 3, Digital Tuner 90 being mounted on the circuit board).

Claim 5

The rejections of base claim 1 and intervening claim 4 are incorporated. The combination Fielding-Park further discloses *said connector comprises a plurality of terminals with rear portions connected to said circuit board* (see at least Fielding, Fig. 1, items 6, 4).

Claim 6

The rejections of base claim 1 and intervening claims 4, 5 are incorporated. The combination Fielding-Park further discloses *said circuit board extends below said rear portions* (see at least Fielding's circuit board which can be installed on top of Park's circuit board and all the connections are made through Park's South Bridge 25).

Claim 7

The rejections of base claim 1 and intervening claims 4, 5 are incorporated. The combination Fielding-Park further discloses *said rear portions extend rearwardly and then downwardly so as to connect to said circuit board* (see at least Fielding, Fig. 1, items 4, 6).

Claim 8

The rejections of base claim 1 and intervening claim 4 are incorporated. The combination Fielding-Park further discloses *said connector comprises a body to which said circuit board is mechanically fixed* (see at least Fielding, FIG. 1).

Claim 9

The rejection of base claim 1 is incorporated. The combination Fielding-Park does not specifically disclose *a further connector mounted on said enclosure for mating with a further mating cable-end connector*.

However, since Park teachings of circuit design are based on a modular approach (e.g., different modules installed on the same printed circuit board), it would have been obvious to a person having ordinary skill in the art at the time

the invention was made to incorporate an infrared remote controller receiver module into the circuit board of Park, this IR remote receiver being connected to the digital tuner through the available bus on the printed circuit board, as this would enable a user to be able to control remotely the functions of the tuner, thereby making the combined device more autonomous without the use of additional discrete components.

Claim 11

The rejection of base claim 1 is incorporated. The combination Fielding-Park does not specifically disclose *said tuner includes a controller for controlling said converter in response to remote control signals.*

However, since Park teachings of circuit design are based on a modular approach (e.g., different modules installed on the same printed circuit board), it would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate an infrared remote controller receiver module into the circuit board of Park, this IR remote receiver being connected to the digital tuner through the available bus on the printed circuit board, as this would enable a user to be able to control remotely the functions of the tuner, thereby making the combined device more autonomous without the use of additional discrete components.

Currently Amended Claim 12

The rejections of base claim 1 and intervening claim 11 are incorporated. The combination Fielding-Park does not specifically disclose *a remote control signal input ~~connector~~ receiver mounted on said enclosure.*

However, as discussed in Claim 11, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a remote control signal input receiver mounted on the combined circuit of Fielding-Park because this would enable a user to be able to control remotely the functions of the tuner, thereby making the combined device more autonomous without the use of additional discrete components.

Claim 13

The rejection of base claim 1 is incorporated. The combination Fielding-Park further discloses *a power supply input connector mounted on said enclosure for connection to a remote power supply* (see at least Park, FIG. 3, item 25).

New Dependent Claim 14

The rejections of base claim 1 and intervening claim 2 are incorporated. The combination Fielding-Park does not specifically disclose *wherein a height of said housing is approximately less than twice that of the SCART connector in order to provide a relatively compact converter*.

Since Fielding teaches an adapter with a common printed circuit board design to be used for electrical apparatus for sale in any market, regardless of the particular type of connectors which are used to connect the printed circuit board to other pieces of apparatus in that market (see at least paragraph 54) and Park teaches a digital tuner part for receiving the digital broadcast signals and converting those to analog ones (see at least paragraph 38) on a printed circuit board that can be connected to the printed circuit board of Fielding that also has provision for SCART connection, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to

combine the two teachings in order to gain the commonly understood benefits of such combination, such as decreased size (as opposed to connecting to a standard-size receiver with digital to analog tuner and a SCART connector), simplified operation and reduced cost.

11. Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over EP 1 176 821 A1 by Victor Fielding ("Fielding") in view of Korean Application Publication No. 10-2001-0016381 by Hwan-Su Park ("Park"), and further in view of EP 1 045 584 A2 by Mark Smith ("Smith").

Claim 10

The rejections of base claim 1 and intervening claim 9 are incorporated. The combination Fielding-Park does not specifically disclose *a changeover switching arrangement for selectively connecting said connector to one of said tuner and said further connector.*

However, Smith teaches a power loopthrough arrangement that allows video/audio signals to be transferred from the VCR to the television via the satellite receiver even when the satellite receiver is off for the purpose of allowing cost savings in electricity.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the loopthrough arrangement in the combination Fielding-Park, as this would allow cost savings in electricity and in hardware.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the

extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hoang-Vu A. Nguyen-Ba whose telephone number is (571) 272-3701. The Examiner can normally be reached on Tuesday -Friday from 7:00 – 17:30.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, John Miller can be reached at (571) 272-7353.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2600 Group receptionist: 571-272-2600.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Anthony Nguyen-Ba". The signature is fluid and cursive, with a long horizontal line extending from the end.

**ANTONY NGUYEN-BA
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100**

January 8, 2008